DEPARTMENT OF THE ARMY
HEADQUARTERS, WALTER REED ARMY MEDICAL CENTER
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WRAMC Pamphlet
No. 40-16

22 July 2002

Medical Services

POLICY FOR SEDATION AND ANALGESIA

1. History. This issue is a revision of the policy for Conscious Sedation. This publication has been extensively revised; therefore the changed portions have not been highlighted.

2. Applicability. These guidelines are applicable to the clinics, services, and departments throughout Walter Reed Army Medical Center (WRAMC) where sedation is administered by non-anesthesia practitioners. Sedation and analgesia will only be administered by or under the direct supervision of physicians, dentists, and other practitioners whose privileges include this technique. These practitioners should remain immediately available during the period of sedation. It should be noted that qualified oral-maxillofacial surgeons are specifically trained in the techniques and practice of general anesthesia, and are considered trained anesthesia practitioners for the purposes of these guidelines. These guidelines specifically **exclude**:

a. Administration of anxiolytic or analgesic agents to alleviate pain and agitation (e.g. postoperative analgesia, chronic pain management, specific anxiolysis, or sedation for the treatment of insomnia), *(NOTE: If administration of anxiolytics or analgesics produces a state of moderate rather than minimal sedation, this policy applies.)*

b. Otherwise healthy patients receiving peripheral nerve blocks, local anesthesia or topical anesthesia and no other sedative or analgesic drugs administered by any route.

c. Situations where it is anticipated that the required sedation will obtund the purposeful response to repeated verbal or painful stimulation (general anesthesia). Management of these patients requires consultation with Anesthesia and Operative Service.

d. Perioperative management of patients undergoing general anesthesia, spinal or epidural anesthesia.

e. Intensive care patients on ventilatory support who require sedation or analgesia.

3. Purpose. This pamphlet provides guidance for the use of sedation and analgesia for patients undergoing diagnostic, therapeutic, or invasive procedures outside the operating room at Walter Reed Army Medical Center. These guidelines establish a uniform level of care designed to minimize the associated risks for patients receiving sedation and analgesia in a variety of settings.

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*This Pamphlet supersedes WRAMC Pamphlet 40-16, dated 1 September 1999.

4. References.

a. The American Society of Anesthesiologists, "Practice Guidelines for Sedation and Analgesia by Non-anesthesiologists," 2002.

b. The American Academy of Pediatrics, "Guidelines for Monitoring and Management of Pediatric Patients during and after Sedation for Diagnostic and Therapeutic Procedures", 1992.

c. The American Society of Anesthesiologists, "Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration: Application to Healthy Patients Undergoing Elective Procedures", 1998.

d. The American College of Emergency Physicians, "Clinical Policy for Procedural Sedation and Analgesia in the Emergency Department, Annals of Emergency Medicine, May 1998; 31:663-667.

e. 2002 Hospital Accreditation Standards.

f. WRAMC Pamplet 40-67, Policy for Medication Administration by the IV Push Route, 22 Jul 02.

5. Attachments.

a. Appendix A: Standardized Sedation and Analgesia Flowsheet (WRAMC Form 2085).

b. Appendix B: Sedation and Analgesia Review Tool.

c. Appendix C: Sedation and Analgesia Quarterly Review Tool.

d. Appendix D: WRAMC Delineation of Clinical Privileges for Deep Sedation.

e. Appendix E: WRAMC Department of Nursing Sedation Competency Evaluation.

6. Explanation of levels of sedation and analgesia. Sedation occurs in a dose-related continuum, is variable, and depends on each patient's response to various drugs.

a. **Minimal Sedation** (Analgesia and Anxiolysis): Diminution or elimination of pain and anxiety in a conscious patient. The patient responds normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected.

b. **Moderate Sedation** (Sedation/Analgesia, formerly known as "Conscious Sedation"): A depressed level of consciousness in which a patient is able to maintain a patent airway independently and continuously and can be aroused by verbal or light tactile stimuli. These patients are unable to hold a conversation, but respond to commands with appropriate action or brief verbalization. The risk of cardiovascular or respiratory compromise is minimal with moderate sedation. Patients undergoing moderate sedation have a small risk of unexpectedly progressing to deep sedation and losing protective reflexes. Constant vigilance is necessary to avoid deeper levels of sedation.

c. **Deep Sedation**: A state of depressed consciousness in which a patient responds purposefully only to repeated verbal or painful stimuli. **Reflex withdrawal from a painful stimulus is not considered a purposeful response.** Patients undergoing deep sedation have a significant risk of partial or complete loss of protective reflexes. Loss of gag reflex, inability to control oral secretions, and loss of swallowing reflex may occur. The ability to consistently and independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway.

Patients may also hypoventilate and require assisted or controlled ventilation. Cardiovascular function is usually maintained, but may become compromised without close, constant vigilance.

d. **Anesthesia**: Consists of general anesthesia and spinal or major regional anesthesia. It does not include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation.The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

7. Approved Locations for Sedation/Analgesia are limited to the following:

a. The Dental and Oral Surgery Clinics.

b. The Gastroenterology and Pulmonary Clinics.

c. The Pain Management Clinic.

d. The Cardiac Catheterization Suites.

e. The General Surgery, ENT and Urology Clinics.

f. The Radiology suites to include the CT scan suites, MRI suite, and the interventional suites.

g. The Pediatric Clinic and Ward.

h. The Pediatric Sedation Unit.

i. The Intensive Care Units (CCU, SICU/TICU, MICU/PICU, ImCU).

j. The Emergency Department.

8. Responsibilities & Staff Qualifications

a. Each Department Chief is responsible for:

(1) Ensuring that sedation and analgesia are provided within the department in accordance with hospital policy.

(2) Recommending licensed independent practitioners for credentialing in sedation and analgesia.

(3) Ensuring that these practitioners have adequate training and experience in sedation and analgesia and an understanding of the requirements of this policy.

(4) Submitting to the Credentials Office for documentation in their credentials file, a list of providers who meet these qualifications.

(5) Submitting quarterly to the WRAMC Quality Outcomes Committee, departmental performance reviews of sedation/analgesia cases.

b. To be credentialed (or privileged) to administer *moderate* sedation, a licensed independent practitioner is:

(1) Ultimately responsible for the patient's welfare.

(2) Available at all times until the patient is discharged home or to the ward.

(3) Certified in Basic Life Support.

(4) Qualified to rescue patients from deep sedation, manage a compromised airway, and provide adequate oxygenation and ventilation utilizing bag/valve mask; OR certified in Advanced Cardiac Life Support or Pediatric Advanced Life Support (when caring for pediatric patients).

(5) Required to a. Attend a block of instruction established by the Anesthesia and Operative Service reviewing techniques and risks of sedation and analgesia, airway management, and patient monitoring; b. Attend an equivalent program approved by the Chief of Anesthesia and Operative Services; OR c. Demonstrate competence as evidenced by outcomes.

(6) Required to maintain records of his/her sedation/analgesia procedures for purposes of recredentialing.

(7) Required, prior to biennial recredentialing, to attend a training session as described above if sedation/analgesia has not been a routine part of clinical practice.

c. The Chief of Anesthesia and Operative Service will recommend practitioners for credentialing to administer *deep* sedation. Anesthesiologists, nurse anesthetists, oral-maxillofacial surgeons, and other practitioners with appropriate, specific deep-sedation privileges are the only personnel allowed to administer planned *deep* sedation. To be credentialed to administer *deep* sedation, a practitioner must be qualified to rescue patients from general anesthesia, manage an unstable cardiovascular system, manage a compromised airway and provide adequate oxygenation and ventilation. He/she must also maintain certification in Basic Life Support AND either Advanced Cardiac Life Support or Pediatric Advanced Life Support as appropriate. See Appendix C for additional guidelines.

d. The Credentials Office will maintain documentation of each individual's training and credentials to provide sedation/analgesia.

e. Nursing personnel involved in administration of medications for, monitoring of, and/or recovery of patients undergoing sedation/analgesia must complete the block of instruction established by the Anesthesia and Operative Service that reviews techniques and risks of sedation/analgesia, airway management, and patient monitoring. This course must be completed at least once every two years. Training will be documented in individual competency files and reported in the Automated Training Database (ATDB), which is currently managed in the Department of Nursing (NESD). Supervisors will verify staff competency by observing practice in the clinical area and documenting compliance with procedural steps. Nursing personnel involved with sedation/analgesia must also be certified in Basic Life Support, and are encouraged to maintain certification in Advanced Cardiac Life Support, or Pediatric Advanced Life Support as appropriate. Verification of individual competency will be maintained in the individual's competency folder.

f. Qualifications necessary to administer medications for *moderate* sedation and analgesia:

Health Care Provider	Requirements to Administer Drugs for Moderate Sedation and Analgesia
Physician, Dentist, Podiatrist, Advanced Practice Nurse, Physician Assistant	Must have training in sedation and analgesia and must be specifically privileged to perform moderate sedation and analgesia, or must be working under the supervision of someone so privileged.
Registered Nurses and Cardiovascular Technologists (91WY6 Or civilian)	Must be competency trained in sedation/analgesia. A physician or dentist must order and *directly supervise* the administration of sedative/analgesic drugs.
Unlicensed Personnel	*May not administer IV push medication.* Personnel who meet the requirements of Part 8c. of this policy may monitor and/or recover patients.

g. A sufficient number of qualified personnel should be available during procedures using moderate or deep sedation. Minimum personnel required:

(1) Licensed Independent Practitioner to evaluate the patient prior to beginning the sedation.

(2) Licensed Independent Practitioner to perform or supervise the procedure.

(3) Qualified person to administer the sedation/analgesia. (1,2,&3 may be the same person).

(4) Qualified person dedicated primarily to monitoring the patient. During moderate sedation cases this person may assist with minor, interruptible tasks provided the patient's level of sedation/ analgesia and vital signs have stabilized, and adequate monitoring is maintained for the patient's level of sedation. During deep sedation cases this person will be given no other responsibilities.

(5) Personnel to assist with the procedure as necessary.

(6) Qualified personnel to recover and discharge the patient from the recovery area.

9. Policy

a. Patient Evaluation

(1) Appropriate pre-sedation evaluation and counseling of patients scheduled for sedation and analgesia reduces the risk of adverse outcomes and improves patient satisfaction. A pre-sedation assessment will be conducted for each patient for whom moderate or deep sedation is planned. The licensed independent practitioner supervising the procedure will review the assessment, determine whether the patient is an appropriate candidate for sedation/analgesia, and develop an appropriate sedation plan. The practitioner should be familiar with relevant aspects of the patient's medical history, including abnormalities of major organ systems, previous adverse experiences with sedation or analgesia, current medications and allergies, time and nature of last oral intake, and history of drug, alcohol, or tobacco abuse.

(2) A focused physical examination must be completed no more than 30 days prior to the planned sedation. The exam includes, at a minimum, vital signs (including weight in the case of pediatric patients), auscultation of the heart and lungs, and evaluation of the airway. Note: Signs found on airway examination that may indicate potential airway management difficulty during sedation include limited range of motion of the neck, large tongue, small mandible (distance from hyoid to tip of mandible less than 5 cm in adults), and limited mouth opening (less than 3 cm in adults).

(3) Assessment of relevant diagnostic and laboratory studies should be guided by underlying medical conditions that may affect the technique or safety of sedation/analgesia.

A pregnancy test on women with childbearing potential must be obtained within 72 hours of the procedure and evaluated prior to sedation. This evaluation must be documented in the patient's medical record.

(4) The patient must be reevaluated *immediately* before the procedure to ensure that no significant changes have occurred since the initial evaluation. This reevaluation must also be documented in the patient's medical record.

(5) The patient or the patient's guardian must be counseled regarding the choice of sedation/analgesia, the associated benefits and risks, and the alternatives. The medical record must contain a consent form describing the plan and choice of sedation accompanied by the signature of the patient indicating an understanding of the risks, benefits, and alternatives related to this plan.

(6) For patients who are undergoing repeated procedures that require multiple episodes of sedation/analgesia, the initial pre-sedation assessment document may be used unless a change in the patient's clinical status has occurred that would alter the outcome of sedation/analgesia administration. A short note will be placed in the patient's medical record stating that a reevaluation of the patient's clinical status was performed immediately prior to the latest administration of sedation/anlagesia.

(7) The pre-sedation evaluation should include the patient's estimated American Society of Anesthesiologists Physical Status Classification (ASA I to V) on the medical record. The ASA patient classifications are listed in the table below:

Class	Description	Examples
ASA I	A patient in generally good health	Healthy patient
ASA II	A patient with mild to moderate, controlled disease	Controlled hypertension Tobacco Smoker Diet-controlled diabetes Obesity
ASA III	A patient with significant systemic disease impairing lifestyle	Old myocardial infarction Poorly controlled hypertension Insulin-dependent diabetes Morbid Obesity
ASA IV	A patient with severe disease that is a constant threat to life	Renal failure on dialysis Congestive heart failure Persistent angina pectoris
ASA V	A moribund patient	Patient not expected to survive beyond 24 hours

Differentiation between ASA II & III is often difficult. The following examples may assist in that determination. A two year old for CT scan has a history of seizure disorder, but is clinically stable without seizures. The risk of seizures during the procedure is low. This patient would be classified as an ASA II. Another two year old scheduled for CT scan has poorly controlled seizures (multiple per day). The risk of seizures is higher. This patient would be classified as an ASA III. A one year old scheduled for cardiac catheterization has a history of cyanotic congenital heart disease (SpO2 85%). The child has stable vital signs, has no TET spells, and is alert and active. This patient would be classified as an ASA III. The same one year old child now presents with bouts of severe cyanosis, bradycardia and mental status changes. This patient would be classified as an ASA IV.

(8) Anesthesia Service may be consulted for the care of any patient by contacting the Anesthesia On-Call Pager at 782-7585, PIN# 1144; or by calling the Main Operating Room Front Desk at 782-6478/9.

b. Patients should be NPO for an appropriate period before receiving sedation and analgesia. Current American Society of Anesthesiologists NPO standards recommend a two-hour, pre-procedure fast after ingestion of clear liquids; a four-hour fast after breast milk; and a six-hour fast after non-human milk or solid foods for all age groups.

Medical emergencies may necessitate sedating patients following shorter periods of fasting. Careful documentation is important in such cases. Patients who are at significant risk for pulmonary aspiration (e.g. pregnant or morbidly obese) should be seen in consultation by the Anesthesia Service before sedation/analgesia is administered.

ASA NPO Guidelines for All Age Groups	
Intake	**Minimum NPO period**
Clear Liquids	2 hours
Breast milk	4 hours
Non-human milk or solid food	6 hours

c. Minimum Monitoring Requirements:

(1) Immediately prior to receiving any medications for sedation, the patient must receive a reevaluation to ensure that no significant changes have occurred since the initial evaluation.

(2) Data will be recorded on WRAMC Form 2085 (See Appendix A). Alternatively, Standard Form 517 (Anesthesia Record), or WRAMC-approved Cardiac Catheterization automated forms may be used. For pediatric patients, WRAMC Form 2085 combined with WRAMC Overprint 499, 1 AUG 94 may be used.

(3) Patient vital signs will be recorded immediately prior to the administration of any medication. Recorded data will include temperature, pulse, respirations, and blood pressure. If automatic devices record any of these parameters, the devices must have functioning alarms.

(4) The patient's oxygenation status and heart rate will be monitored continuously with a pulse oximeter and recorded at 5-minute intervals, or more frequently as appropriate.

(5) Ventilatory function will be monitored on a continuous basis by direct observation or auscultation of the respiratory rate and documented every 5 minutes. Exhaled carbon dioxide monitoring is highly encouraged and should be used when available.

(6) During sedation/analgesia, the patient's response to verbal commands will be monitored frequently, except for patients who are unable to respond appropriately (e.g. young children or patients undergoing procedures in which facial movement could be detrimental). In cases where the patient should not respond verbally, the patient can use a prearranged movement to indicate understanding of verbal commands.

(7) Blood pressure will be determined before sedation begins and will be checked and recorded at intervals of 5-minutes or less during the period of sedation. If blood pressure monitoring during the procedure will disturb the patient and interfere with the procedure (e.g. a patient undergoing a MRI or EEG), blood pressure measurement may be suspended until the procedure is completed.

(8) Electrocardiographic monitoring will be used for patients with significant cardiovascular disease as well as during procedures in which arrhythmias are anticipated. Rhythm will be noted on the record at 5-minute intervals or more frequently in event of any arrhythmia.

(9) All drug doses will be recorded, noting route, time of administration and concurrent vital signs. Use of oxygen will be documented, noting method of delivery and flow rate.

(10) Type and amount of intravenous fluid administered, including blood and blood components, will be recorded.

(11) Any unusual events will be documented with the time of the occurrence and action taken in response to the occurrence.

(12) Monitoring requirements may be modified under special circumstances, provided that a note specifying the reason is made on the procedure record.

d. Equipment

(1) The following must be IMMEDIATELY AVAILABLE (accessible within one minute):

(a) Pharmacologic antagonists (naloxone for opioids and flumazenil for benzodiazepines).

(b) Age/size appropriate airway managment equipment, including oral airways, masks, and bag-valve ventilation device (means to deliver positive-pressure ventilation).

(c) Capability to suction the airway.

(d) Oxygen (including a backup oxygen cylinder if using wall oxygen as primary source).

(e) Fully stocked resuscitation cart.

(f) Defibrillator.

(g) Telephone and the number to activate the hospital advanced life support team.

(2) Equipment to deliver supplemental oxygen must be present whenever sedation/analgesia is administered. Administration of supplemental oxygen during sedation is recommended.

e. Medications and Techniques

(1) When possible, avoid transporting the patient immediately following the administration of sedation/analgesia.

(2) For patients receiving intravenous sedation/analgesia, maintain vascular access following the procedure until the patient is no longer at risk for cardiorespiratory depression. For patients receiving sedation/analgesia by non-intravenous routes, or patients whose intravenous line becomes dislodged or occluded, evaluate the need to establish or reestablish intravenous access on a case-by-case basis. In all cases, an individual with the skills to establish intravenous access should be immediately available.

(3) Give intravenous sedative/analgesic drugs in small, incremental doses titrated to the desired endpoints of analgesia and sedation. Allow sufficient time between doses to assess the effect before administering additional doses. When administering drugs by non-intravenous routes (e.g. oral, rectal, intramuscular), allow appropriate time for drug absorption before considering supplemental doses.

(4) Typical drugs, their incremental doses, and their onset times are noted below:

Drug	Dose	Typical Onset
IV midazolam	0.5-1.0 mg (0.025-0.2 mg/kg) / incremental dose	30 seconds - 1 minute
IV fentanyl	15-50 mcg (0.3-1 mcg/kg) / incremental dose	30 seconds - 1 minute
IV meperidine	10-25 mg (0.2-0.6 mg/kg) / incremental dose	1 minute
IV morphine	2-5 mg (0.05-0.1 mg/kg) / incremental dose	1 minute
IV pentobarbital	1-5 mg/kg IV, give slowly, titrate to effect; MAX: 150mg	1-2 minutes
Oral midazolam	15 mg (0.5-1.0 mg/kg) single dose	20-30 minutes
Diazepam (PO, PR)	0.1-0.3 mg/kg one time dose; MAX: 10mg/dose	30-45 minutes
Oral chloral hydrate	2 gm (50–75 mg/kg) single dose	20-30 minutes

(5) The above list is not inclusive, but serves as a general guideline for practice. If agents other than those listed above are used for sedation/analgesia, they must be individually reported on the quarterly review tool.

(6) Combinations of sedative and analgesic agents may be administered as appropriate for the procedure and the patient's condition. Ideally, each component should be administered individually to achieve the desired effect (e.g. analgesic medication to relieve pain and sedative medication to decrease awareness and anxiety). Practitioners must respect the propensity for combinations of sedative and analgesic drugs to potentiate respiratory depression. Smaller individual doses of each medication may be required and monitoring of respiratory function is imperative.

(7) Patients who hypoventilate during sedation/analgesia should be encouraged or stimulated to breathe deeply and should receive supplemental oxygen. Institute positive pressure ventilation if spontaneous ventilation is inadequate. Naloxone and/or flumazenil may be administered to improve spontaneous ventilation in patients who have received opioids or benzodiazepines respectively. After pharmacologic reversal, **observe the patient for at least two hours** to ensure that cardiorespiratory depression does not recur.

(8) When the patient is transported from the procedure area to the appropriate recovery area, supplemental oxygen and airway equipment, including an oral airway and a bag-valve-mask system, **must** accompany the patient. Pulse oximetry monitoring should be continued during transport, unless the transport distance is very short (e.g. from one room to another within a clinic) or the patient already meets the clinical discharge criteria listed in section "e" below. A licensed independent practitioner must accompany, or be immediately available during transport of the pediatric patient. Healthcare personnel (NA/91W/LPN/RN/LIP) accompanying adult patients during transport must complete the courses and meet the criteria described in section #8 of this Pamphlet.

f. Recovery Care

(1) At a minimum, the recovery area must be staffed by a Registered Nurse who has completed the courses and met the criteria described in paragraph #8c of this Pamphlet. All other recovery area staff must also complete the courses and meet the criteria described in paragraph #8c. Airway equipment, oxygen, suction, and a fully stocked resuscitation cart must be immediately available for patients recovering from sedation. After sedation/analgesia, patients should be observed for at least 30 minutes or until they are no longer at risk for airway obstruction or hypoventilation. Patients who have received a sedative antagonist drug should be observed for at least two hours after the last dose of that drug. Vital signs and respiratory function will be monitored on arrival in the recovery area and at least every 15 minutes for the first hour; every 30 minutes for the second hour; and every 1 hour thereafter, or more often as required by the patient's condition.

Pulse oximetry should be monitored continuously until discharge criteria are met. Oxygen saturation must be within 3% of pre-sedation levels before discharge. The licensed independent practitioner will discharge the patient from the recovery area utilizing the Post-Anesthesia Recovery Score (PARS) system. The patient must have a PARS of 10 or demonstrate return to their baseline function prior to discharge. The PARS system is shown in the following table:

PAR Scoring System		
Category	**Score**	**Description**
Activity	2	Moves extremities
	1	Moves one or two extremities
	0	Moves no extremities
Respiration	2	Able to breathe and cough freely
	1	Dyspnea or distressed breathing
	0	Apnea
Circulation	2	BP +/- less than 20% of pre-sedation value
	1	BP +/- 20 to 40% of pre-sedation value
	0	BP +/- more than 40% of pre-sedation value
Color	2	Pink or normal
	1	Pale or dusky
	0	Cyanosis
Consciousness	2	Fully awake
	1	Arousable
	0	Not arousable

(2) A responsible adult must be available to accompany the patient home on release from the hospital. Adult patients must be instructed not to drive, make legally binding decisions, or participate in hazardous activities during the first 24 hours after being sedated. The patient or legal guardian will receive written and verbal instructions outlining: the typical postoperative course; how to treat pain, nausea, and other minor complications; when to take medications; who to contact for questions or assistance (specific 24-hour phone number); and the plan for follow-up care.

g. Review and Documentation

(1) All cases in which the following occur must be reported to the appropriate service and department Chief and the Chief of Anesthesia and Operative Service for performance improvement review:

(a) Narcotic or benzodiazepine antagonist administered.

(b) Assisted ventilation required.

(c) Unanticipated hospital admission or increase in acuity of care.

(d) Oxygen saturation falls below 90% for five or more minutes.

(e) Oxygen saturation falls below 80% at any time.

(f) Life threatening dysrhythmias occur.

(g) Monitoring or record keeping deviates from this policy.

(h) Utilization of drugs other than those listed in this policy.

(2) Each service will perform a quarterly review of their sedation/analgesia cases utilizing the review tool accompanying this policy. At least 30 records will be reviewed per quarter. The quarters and suspense dates are indicated on the table below. If the total number of sedation/analgesia cases performed during the quarter is less than 30, a 100% review is required. If the number performed is over 600, then 5% of cases will be reviewed. The results of this review must be summarized in the minutes of each service's Performance Improvement Committee meeting. The total number of sedation/analgesia cases performed each quarter will also be reported. The summarized results will be forwarded to the WRAMC Quality Outcomes Committee and to the Chief of Anesthesia and Operative Services for review. Any episodes involving patient injury will be documented on a WRAMC Form 1811 and reviewed promptly by the appropriate service and department chairpersons, the Chief of Anesthesia and Operative Service, and the Quality Outcomes Committee.

QUARTER	INCLUSIVE DATES	SUSPENSE DATE
1st	October-December	20 January
2nd	January-March	20 April
3rd	April-June	20 July
4th	July-September	20 October

(3) This policy will be reviewed and updated every 12-18 months by Anesthesia and Operative Services.

APPENDIX A

(See DD Form 2005 for Privacy Act Statement)

PRE-ANESTHESIA ASSESSMENT FOR SEDATION/ANALGESIA AND FLOWSHEET

HISTORY

Pertinent history, chief complaint and condition of admission ☐ Alert and oriented X 3 ☐ Other.	Social History:	Tobacco	Alcohol / Drugs
	Allergies:		
Previous anesthetic problems.	Current medications* ☐ None OTC: _____ Supplements, vitamins & herbals: _____ * Coumadin, ASA and insulin patients require pre-procedure instructions.		
Impression. Plan/procedure:	H/O latex allergy ☐ Yes ☐ No H/O MRSA ☐ Yes ☐ No H/O VRE ☐ Yes ☐ No		

PHYSICAL EXAMINATION

Pulse	BP	Resp	Temp	Pain (0-10)	Age	Height	Weight

Oropharynx	Heart	Pulmonary	Abdomen	OB/GYN	Anesthesia plan
Dental ☐ Partial ☐ Edentulous Mallampati Classification: ☐ Large tongue ☐ Limited neck extension ☐ Limited mouth opening	Heart rate: ☐ Regular rate and rhythm ☐ Irregular ☐ Murmur	Breath sounds: ☐ Clear ☐ Rales ☐ Rhonchi ☐ Wheezes	☐ Soft ☐ Tender ☐ Masses	LMP:	☐ Sedation/analgesia (moderate) ☐ Deep sedation Reason for choice of anesthesia ☐ Patient's choice ☐ Anxiety control ☐ Pain control Premedication ☐ None

ASA classification:	Pre-procedure orders
Required pre-procedure testing ☐ None ☐ HCG ☐ EKG ☐ CXR PA/LAT ☐ Labs. _____ ☐ Other: _____	Admit for: 1. Vital signs on admission. 2. IV start with. 3. Oxygen via ☐ nasal cannula ☐ face mask at _____ lpm during procedure 4. Cardiac, oxygen saturation, vital signs monitoring during procedure 5. Medications:
Informed consent Reviewed and signed? ☐ Yes ☐ No	

Provider's printed name or stamp	Signature	Date

IMMEDIATE PRE-PROCEDURE ASSESSMENT

Pulse	BP	Resp	Temp	Oxygen sat	Pain (0-10)	Did the patient take required premedication? ☐ Yes ☐ No ☐ N/A

Interval changes since preanesthetic assessment ☐ No ☐ Yes *(If "Yes," explain.)*	Patient has been NPO _____ hours. Are there any modifications to the anesthetic or procedure plans? ☐ Yes ☐ No

Removed-
Contact lenses ☐ Yes ☐ No ☐ N/A
Dentures ☐ Yes ☐ No ☐ N/A

X-ray, EKG and Lab Data (if ordered)

Test	Date	Result	Test	Date	Result
HCG					
EKG					

Provider's printed name or stamp	Signature	Date	Time

PATIENT'S IDENTIFICATION *(For typed or written entries give: Name--last, first, middle; grade; date; hospital or medical facility; SSN)*

WRAMC Form 2085, 1 Jun 02

APPENDIX A (Continued)

SEDATION/ANALGESIA FLOWSHEET

Date	Unit	Procedure ☐ Colon ☐ EGD	MD	RN	GI Tech	Consent ☐ Yes ☐ No

Allergies

IV START Time: Site: Size:

IV DISCONTINUED Time: Condition:

IV FLUIDS

				Totals infused
Time				
Type				

NPO since:

EQUIPMENT CHECKED ☐ Yes ☐ No

- Oxygen
- Suction
- Crash cart
- Defibrillator
- AMBU Bag
- Emergency airway equipment
- Pharmacologic antagonists
- Cautery type
- Ground pad ☐ Yes ☐ No
- Site

LEGEND
v = Systolic BP
^ = Diastolic BP
● = Pulse
* = See comments

Time	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60	50	40	Resp	SaO_2

ECG 1 NSR 2 Consistent w/baseline 3 Other

O2 Appliance 1 Cannula 2 Mask @ _____ liter/minute

SEDATION ANALGESIA SCALE

Emotional affect	2 Calm / Tolerant 1 Anxious / Uneasy 0 Unresponsive / Flat	
LOC	2 Alert and awake 1 Follows commands / intermittant arousal 0 Unresponsive	
Vital signs	2 Within acceptable limits 1 Increase requires intervention 0 Decrease requires intervention	
Physical level of comfort	3 Comfortable 2 Mild discomfort 1 Moderate discomfort 0 Severe discomfort	
Total sedation scale (Optimal is 9)		

MEDICATIONS

Route	Drug	Increment	Dosage

POST-OP ORDERS

1. Transfer to _____ via gurney or wheelchair until discharge criteria met.
2. Vital signs per protocol.
3. BRP with assistance.
4. NPO until:
   a. alert.
   b. then discontinue IV when stable.
   c. _____
5. Discharge when stable and discharge criteria is met.

POST-ANESTHESIA SCORE

Score	Criteria	TIME		
2	Able to move 4 extremities			
1	Able to move 2 extremities			
0	Able to move 0 extremities			
2	Able to breathe deeply and cough freely			
1	Limited breathing			
0	Apnea			
2	BP ± 20% of pre-anesthetic level			
1	BP ± 20%-50% of pre-anesthetic level			
0	BP ± 50% of pre-anesthetic level			
2	Fully awake			
1	Arousable on calling			
0	Not responding			
2	Normal			
1	Pale, dusky, blotchy, jaundiced			
0	Cyanotic			
	TOTAL SCORE:			

PROC START/END TIMES

Started:	Ended:

TRANSFER TIMES

To PACU/____	To SDS/____

DISCHARGE

LOC:
☐ Awake ☐ Drowsy
☐ Consistent with baseline
☐ Other:

PROCEDURE RECALL

0. Total
1. Limited Score: _____
2. No recall

DISCHARGE CRITERIA

☐ Ambulatory/steady gait
☐ Ambulatory/min. support
☐ Wheelchair ☐ Cart
☐ Min. or no nausea/vomiting
Abdomen ☐ Soft ☐ Distended
☐ Passed flatus

DISCHARGE

Time: _____ Date: _____
Accompanied by:
☐ Relative
☐ Friend
☐ Other: _____
Destination
☐ Home
☐ Other: _____

DISCHARGE INSTRUCTIONS

Reviewed. Understanding was verbalized. Printed information given. ☐ Yes ☐ N/A
Signature:

Printed name of person providing sedation / analgesia	Signature	Date	Time

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APPENDIX B

SEDATION/ANALGESIA PERFORMANCE IMPROVEMENT REVIEW TOOL

DATE	**DEPARTMENT/SERVICE (SPECIALTY)**	**REVIEWER'S NAME (print)**	**NAME OF PROVIDER (LIP)**	**PATIENT INITIALS AND LAST 4 OF SSN**

Please answer each question and record comments for "NO" and "N/A".

INDICATOR:	**YES**	**NO**	**N/A**	**COMMENTS:**
1. Approved WRAMC form 2085 used for documentation of sedation?				
2. Documentation form signed by all appropriate providers?				
3. Presedation exam done according to WRAMC policy?				
4. Re-evaluation performed immediately before sedation?				
5. Documentation that patient (&/or guardian) counseled for risks, benefits and alternatives to sedation and attestation with signed consent?				
6. Continuous patient monitoring (VS, LOC, etc.) documented throughout entire procedure?				
7. VS monitored & documented at least every 5 minutes throughout entire procedure?				
8. Is the following equipment **immediately available (within one minute) to location of sedation & analgesia?**				
a. Pharmacological antagonists (Naloxone & Flumazenil)				
b. Age/size appropriate airway equipment				
c. Bag/Valve ventilation device (AMBU)				
d. Oxygen and backup cylinder				
e. Suction				
f. Fully stocked crash cart with defibrillator				
g.Telephone and number to access Code Team				
9. Are patients transported from procedure area to recovery area with:				
a. Continuous pulse oximetry?				
b. Supplemental oxygen?				
c. Bag/valve mask (AMBU) available?				

APPENDIX B (Continued)

INDICATOR:	YES	NO	N/A	COMMENTS:
10. Is the following equipment **immediately available (within one minute) to the recovery area?**				
a. Pharmacological antagonists (naloxone & flumazenil)				
b. Age/size appropriate airway equipment				
c. Bag/valve ventilation device (AMBU)				
d. Oxygen and backup cylinder				
e. Suction				
f. Fully stocked crash cart with defibrillator				
g. Telephone and number to access Code Team				
11. Are patient vital signs monitored upon arrival to recovery area and q15" x1hr; q30" x1hr; then q1hr until release criteria met?				
12. Was continuous pulse oximetry monitored until release criteria met?				
13. Were discharge criteria met before patient was released from recovery area?				
14. Was the patient discharged with a responsible adult in attendance?				
15. Were any narcotic or benzodiazepine antagonists administered during the case? (If yes, please explain)				
16. Did the patient require assisted ventilation at any time? (If yes, please explain)				
17. Did the patient require an elevation in level of care (i.e. Transfer from ward to ICU) or require unanticipated hospitalization? (If yes, please explain)				
18. Did the patient's oxygen saturation fall below 90% for five or more minutes? (If yes, please explain)				
19. Did the patient's oxygen saturation fall below 80% at any time during the procedure? (If yes, please explain)				
20. Did the patient experience any life threatening cardiac arrhythmias? (If yes, please explain)				
21. Did the patient experience an adverse drug reaction?				
22. Were medications used during sedation/ analgesia other than those listed in policy (midazolam, fentanyl, meperidine, morphine, chloral hydrate, pentobarbital, diazepam). If others used, please list.				

APPENDIX C

SEDATION/ANALGESIA PERFORMANCE IMPROVEMENT QUARTERLY REVIEW TOOL

DATE	DEPARTMENT/SERVICE (SPECIALTY)	QUARTER (CIRCLE)	NAME OF PERSON SUBMITTING QUARTERLY REPORT
		1ST, 2ND, 3RD, 4TH	

TOTAL NUMBER OF SEDATION CASES:_____

TOTAL NUMBER OF CASES REVIEWED:_____

INDICATOR:	# OF NON-COMPLIANCE		COMMENTS:
1. Approved WRAMC form 2085 used for documentation of sedation?			
2. Documentation form signed by all appropriate providers?			
3. Presedation exam done according to WRAMC policy?			
4. Re-evaluation performed immediately before sedation?			
5. Documentation that patient (&/or guardian) counseled for risks, benefits and alternatives to sedation and attestation with signed consent?			
6. Continuous patient monitoring (VS, LOC, etc.) documented throughout entire procedure?			
7. VS monitored & documented at least every 5 minutes throughout entire procedure?			
8. Is the following equipment **immediately available (within one minute) to location of sedation & analgesia?**			
a. Pharmacological antagonists (Naloxone & Flumazenil)			
b. Age/size appropriate airway equipment			
c. Bag/Valve ventilation device (AMBU)			
d. Oxygen and backup cylinder			
e. Suction			
f. Fully stocked crash cart with defibrillator			
g.Telephone and number to access Code Team			
9. Are patients transported from procedure area to recovery area with:			
a. Continuous pulse oximetry?			
b. Supplemental oxygen?			
c. Bag/valve mask (AMBU) available?			

APPENDIX C (Continued)

INDICATOR:	# OF NON-COMPLIANCE		COMMENTS:
10. Is the following equipment **immediately available (within one minute) to the recovery area?**			
a. Pharmacological antagonists (naloxone & flumazenil)			
b. Age/size appropriate airway equipment			
c. Bag/valve ventilation device (AMBU)			
d. Oxygen and backup cylinder			
e. Suction			
f. Fully stocked crash cart with defibrillator			
g. Telephone and number to access Code Team			
11. Are patient vital signs monitored upon arrival to recovery area and q15" x1hr; q30" x1hr; then q1hr until release criteria met?			
12. Was continuous pulse oximetry monitored until release criteria met?			
13. Were discharge criteria met before patient was released from recovery area?			
14. Was the patient discharged with a responsible adult in attendance?			
15. Were any narcotic or benzodiazepine antagonists administered during the case? (If yes, please explain)			
16. Did the patient require assisted ventilation at any time? (If yes, please explain)			
17. Did the patient require an elevation in level of care (i.e. Transfer from ward to ICU) or require unanticipated hospitalization? (If yes, please explain)			
18. Did the patient's oxygen saturation fall below 90% for five or more minutes? (If yes, please explain)			
19. Did the patient's oxygen saturation fall below 80% at any time during the procedure? (If yes, please explain)			
20. Did the patient experience any life threatening cardiac arrhythmias? (If yes, please explain)			
21. Did the patient experience an adverse drug reaction?			
22. Were medications used during sedation/ analgesia other than those listed in policy (midazolam, fentanyl, meperidine, morphine, chloral hydrate, pentobarbital, diazepam). If others used, please list.			

APPENDIX D

Walter Reed Army Medical Center

Delineation of Clinical Privileges: Deep Sedation

Name of Licensed Independent Practitioner **(print)**	Name of Department & Specialty

List each practice location: (mandatory) (if more than three, please attach additional sheet)

Location 1:_____

Location 2:_____

Location 3:_____

Criteria for appointment of privileges (check all that apply and provide appropriate documentation)

_____Completion of training in critical care subspecialty.

_____Completion of fellowship training with a rotation through Anesthesia Service.

_____Demonstrated competence as evidenced by outcomes.

_____Attendance at/participation in approved CME training program.

Criteria for Reappointment of Privileges (will occur during routine recredentialing process)

Demonstrates competence (to include, but not limited to):

_____Knowledge of agents including reversal agents.

_____Ability to manage cardiovascular instability.

_____Ability to manage a compromised airway.

Privileges Requested	**Yes**	**No**	**Privilege Recommended**	**Privilege Denied**	**Comments**
Perform deep sedation without consultation					
Perform deep sedation with selective consultation in some cases					

_____

Signature of Applicant/Date

_____

Signature of Department Chief/Date

_____

Signature of Chief of Anesthesia&Operative Services/Date

APPENDIX E

WALTER REED ARMY MEDICAL CENTER
DEPARTMENT OF NURSING
COMPETENCY VALIDATION
JULY 2002

SEDATION / ANALGESIA
RN, 91W, LPN, NA, Technicians

NAME:_____UNIT:_____

DATE: _____

COMPETENCY STATEMENT: Provides safe care to patients across the age continuum receiving sedation/analgesia (moderate sedation).

DEFINITION OF SEDATION/ANALGESIA: State of depressed level of consciousness in which a patient is able to maintain a patent airway and can be aroused by verbal or light tactile stimulation.

PERFORMANCE CRITERIA:

Prior to Return Demonstration complete the following:

TASK_____**STAFF SIGNATURE/DATE**

1. Read WRAMC Pamphlet 40-16 dated June2002_____

2. Attend approved Sedation Course _____

3. Has met prerequisites for administration of sedation/analgesia per WRAMC Pam 40-16 _____

	YES	NO	N/A	Expiration
BLS				
ACLS				
PALS				

APPENDIX E (Continued)

Return Demonstration:
Instructions to the Observer:
Directly observe staff perform the following:

RN	LPN	NA/TECH	PROCEDURAL STEPS	YES	NO	N/A
X	X	X	Prepare patient for sedation/analgesia			
X			Administer IV medications for sedation/ analgesia utilizing the "5 rights" of medication administration			
X	X	X	Recognize potential medication side effects			
X	X	X	Monitor patient as per WRAMC Pam 40-16			
X			Recognize early signs of airway obstruction and intervene appropriately			
X	X	X	Recover patient as per WRAMC Pam 40-16			
X			Discharge patient utilizing PARS under direction of LIP			
X	X	X	Verify use of appropriate documentation on appropriate forms			

Signature on this form validates competence in the administration of sedation/analgesia.

_____Completion of initial training _____Biennial

Observer's Comments:_____

_____

_____

Observer's Signature:_____Date:_____

Staff Member's Signature:_____ Date:_____

Supervisor's Signature:_____Date:_____

The proponent agency of this publication is the Anesthesia and Operative Service. Users are invited to send suggestions and comments on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, Walter Reed Army Medical Center, ATTN: MCHL-MAA-MS, 6900 Georgia Avenue, N.W., Washington D.C. 20307-5001.

FOR THE COMMANDER:

OFFICIAL:

ERIK R. GLOVER
Major, MS
Executive Officer

JAMES R. GREENWOOD
Colonel, MS
Deputy Commander for
Administration

DISTRIBUTION:
A